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# Department of Pesticide Regulation



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## Meeting Minutes Yurok Environmental Monitoring Workgroup Humboldt County Agricultural Commissioner Office, Eureka Wednesday, September 08, 1999

Participants: Ken Childs, Sr., Yurok Tribe  
John Melvin, Env. Program Tech., Yurok Tribe  
Bessie Lee, Environmental Program Manager, with Yurok Tribe

Ex officio: Kean Goh, Department of Pesticide Regulation  
Pam Wofford, Department of Pesticide Regulation  
DeeAn Jones, Department of Pesticide Regulation  
Dr. Michael O'Malley, UCD Medical School and DPR consultant  
David Cayvett, Del Norte County Agricultural Commissioner's Office  
John Falkenstrom, Humboldt County Agricultural Commissioner

**Bessie Lee** opened the meeting by thanking everyone for attending. **Bessie** suggested holding our next meeting at a new location in order to increase participation. All present agreed on the new community center building in Weitchpec. The next meeting will be set for sometime in late October. **Kean** and **Bessie** will choose a date and inform the rest of the workgroup.

**Dr. Mike O'Malley** gave the group a brief background. He stated that he has been doing mostly illness in agriculture work, and would be interested in working with the Tribe on forestry herbicide issues.

After briefly looking over the agenda, **Pam Wofford** discussed the status of sampling that was done in the spring. She stated that there were no positive detections for 2,4-D, atrazine, and triclopyr, including the samples that survived the automobile accident.

**Bessie Lee** asked **Kean** if it was possible to perform bioassays. **Kean** stated that they may be done for ecological assessment to compare sprayed sites from unsprayed areas. He stated that toxicity tests themselves may not be of value due to the fact that herbicides are being used, not insecticides, there is not likely to be toxicity to aquatic invertebrates. Further, the herbicide levels in water are so low that they are not likely to be toxic in bioassays. **Kean** suggested that this type of investigation might be feasible for the fisheries group to consider.

The group began to discuss the upcoming fall sampling. Earlier this year, several plants were collected, and method validation has been completed, with the exception of maidenhair fern. Because those in attendance are not familiar with gathering areas, **Bessie** suggested that we go back to the Yurok office after the meeting to try to find out. **Pam** indicated that since the herbicides are concentrated in the application areas, it would be best to do primary sampling in those areas this fall. Then, in spring, collect samples in the actual gathering areas and possibly



return to last springs application areas. **Bessie** agreed that we do not want to miss another sampling season and should do some pilot sampling of next week's applications. The final sampling plan is up to the Tribe.

The group then discussed concerns about the lack of participation and where to go from here. **Ken Childs, Sr.**, stated that the Native people are not satisfied with no herbicide detections. **Ken** feels that training a tribal member and having him/her participate in sampling may be a start, although it is hard to change beliefs or opinions. **Bessie** said that she may be able to obtain a USEPA grant for a pesticide inspector. Everyone feels like we were on the right track with informative meetings and speakers, yet recently attendance has been low.

Sediment and fish and deer tissue are two other types of media that were discussed. For sediment, **Bessie** does not feel comfortable making the decisions. For tissues, she feels that there are too many contributing factors to be economically feasible. Epidemiology surveys are much more sensible, because there is a high cancer rate among Tribe members. **Dr. O'Malley** stated that it would be useful to document cancer cases among Tribal members. The information out there does not show a problem, because most reported cases are on applicators. Because the Tribe is concerned about birth defects and cancer clusters, there needs to be some documentation. The lack of documentation of these Tribal concerns makes it difficult to determine cause and effect. Epidemiology surveys and face-to-face discussions with concerned Tribal members were suggested.

The topic of a cancer cluster on the reservation was brought up. No one knows what is causing the cancer at Weitchpec. **Dr. O'Malley** stated that it is impossible to test chronic exposures and determine the cause. There are many routes of exposure, which may be different than the routes DPR is sampling (ex: ground water). **Bessie** stated that we should discuss drinking water at the next meeting. **Dr. O'Malley** feels that if the concern is over exposure, it would be best to sample in the actual gathering areas, or possibly have Tribal gatherers hand over collected material for laboratory analysis. This is a way of obtaining actual exposure numbers. It takes approximately 3 weeks to see the effects of triclopyr (Garlon®). Unknowing gatherers may not know what the effects are and collect in treated areas, increasing their risk of exposure. **Kean** said that DPR will sample inside the application areas and in the buffer zone. We will not do dissipation, but may sample again, 1 year later, for herbicide residues.

After lunch, **Kean** introduced **Dr. Michael O'Malley** who discussed forestry herbicides and epidemiology. **Dr. O'Malley** gave some general information about case reports and comparison studies that are used to determine cause and effect. He stated that, in order to study cancer, a large group is necessary. Northern California houses a small population in a large geographical area, and the cancer rates are not much different across the state. In order for cause/effect to be established, a striking pattern must be determined. **Dr. O'Malley** felt that person-to-person interviews about beliefs and concerns would be the best place to start.

Simple cancer studies look at cancer rates proportional to population size. **Dr. O'Malley** stated that we do not know how many people get sick from pesticides because not everyone gets treated. It is possible to study low-grade symptoms, not just fatalities, but the first step is to

determine the concerns by talking to people. Survey does not have to be elaborate or long term. It is important to generate some documentation about the health issues, not worrying whether or not pesticides were the cause. It is also important to document birth defects. The national cancer and birth defects registries are huge according to **Dr. O'Malley**, but they started on a much smaller level. Numeration of cases in the registries depends on cases receiving medical treatment, and are reported by patient's residence, not location of the incident. Therefore, **Dr. O'Malley** could not stress enough the importance of documenting all cancer and birth defect concerns.

**Ken Childs, Sr.**, suggested combining our workgroup meetings with the Tribal cultural meetings, in order to get the word around. He stated that there are strong beliefs that herbicides are the cause of the problems, and that those beliefs may not be changeable. But, right now, all concerns are "hearsay". **Dr. O'Malley** stated that people will continue to associate 2,4-D with 2,4,5-T, and a lot of current feeling go back to the time when many problems were caused by 2,4,5-T. All of these local concerns and cases that have been heard must be put **on the record**. It was suggested that **Jene McCovey** and **Susan Burdick** may be helpful in getting the word around and encouraging Tribal members to document their cases.

Lastly, **John Melvin** and **Bessie Lee** suggested that **Marty Geslak** should sample with us and help select sites. There will be another meeting in October, but will only involve the Workgroup. Future meetings may incorporate the cultural committee. Everyone would like to see a larger turnout at the next meeting to be held in Weitchpec.